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# 1.0 Scope of Delivery



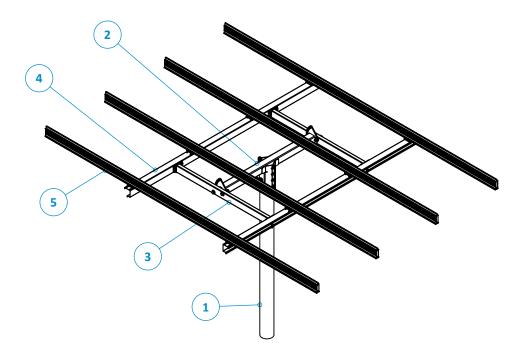
# Components

ID	PART	QTY
1	Post	1
2	Head	1
3	Pivot Beam	2
4	G-Beam	2
5	Typhoon Rail	4
6	Typhoon Clip A	36
7	Typhoon Clip C	32
8	WEEB Washer	9

- Upon receipt of goods, make sure to check all packaging to ensure delivery of all parts required.
- Post is not included

# **Assembly Hardware**

ID	SIZE	TYPE	QTY	FINISH
Α	0.750 x 4.000	Hex Bolt	4	Zinc
В	0.750	Flat Washer	8	Zinc
С	0.750	Hex Nut	2	Zinc
D	0.750	Nylock Nut	2	Zinc
Е	0.625 x 9.000	Threaded Rod	1	Galv
F	0.625	Flat Washer	2	Galv
G	0.625	Hex Nut	2	Galv
Н	0.500 x 2.000	Carriage Bolt	14	Galv
I	0.500 x 1.250	Hex Bolt	16	Galv
J	0.500	Flat Washer	46	Galv
K	0.500	Hex Nut	30	Galv
L	0.313 x 1.000	Carriage Bolt	32	Stainless
М	0.313	Flanged Hex Nut	32	Stainless
N	0.250 x 0.750	Flanged Hex Bolt	36	Stainless
0	0.250	Flat Washer	36	Stainless
Р	0.250	Nylock Nut	36	Stainless





**2.0** Post

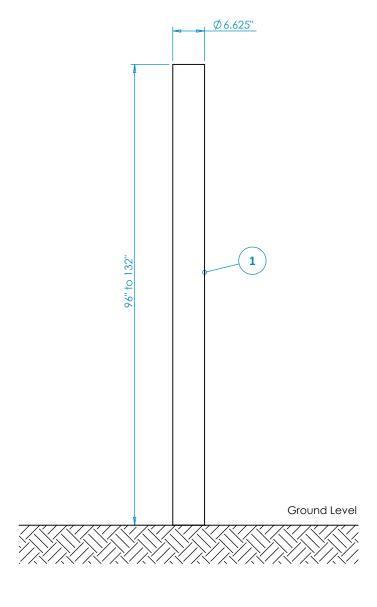


The TPM is designed to mount onto a 6" schedule 40 galvanized steel pipe (installer supplied).



#### Outside diameter 6.625"

Ensure the post is mounted plumb and hasn't shifted while concrete has cured. The post should extend 96" to 132" out of the ground depending on the desired final height.







# 3.0 Head Installation











Flat Washer



0.500"

Hex Nut

x10

0



F

G

0.625" Flat Washer x2

0.625" Hex Nut

Lift the Head on top of the post. Slide it down until it is resting on the top of the post, and then spin it to face South.

Once the Head is in position, begin tightening the bolts on both sides of the sleeve. Evenly tighten the bolts so that the head uniformly squeezes in against the post.

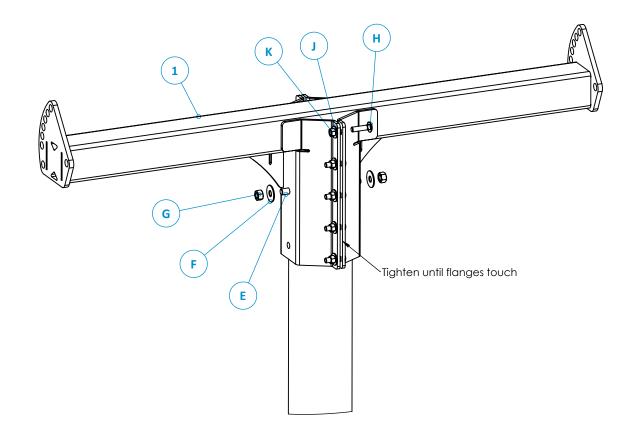


Tighten until the flanges are touching.

A through bolt is installed to lock the Head in position. Use the top holes on either side of the Head as a guide and drill two 5/8" holes through the post. Insert the threaded rod and fasten on both sides.



The through bolt may be left until the end of the installation if you want the ability to adjust the alignment later on.







### 4.0 Pivot Beam Installation







Hex Bolt





0



0.750" Hex Nut x2

9



D

0.750" Nylock Nut x2

Insert a bolt into the center hole of the Pivot Beam first and then lift into position. Loosely fasten a nut to hold it in place. Insert the second bolt to pin the Pivot Beam in place.

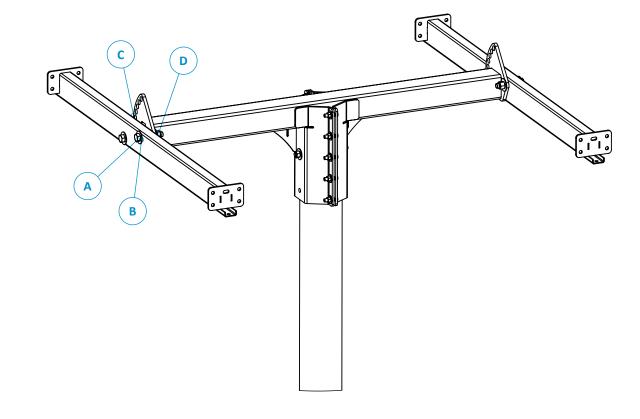


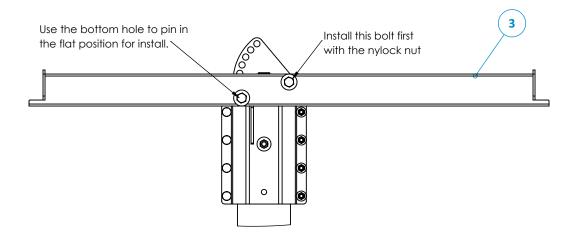
It is reccomended to pin in the flat position for the installation.

Repeat the process for the second Pivot Beam. Tighten the hardware until it is snug. Leave it loose enough at this stage that you can adjust the tilt easily later on.



Nylock nut goes on the front pivot side. Hex nut goes on the adjustable side.









# **5.0 G-Beam Installation**











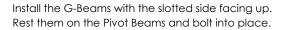
0.500" x 1.250" Hex Bolt x16



Flat Washer x16

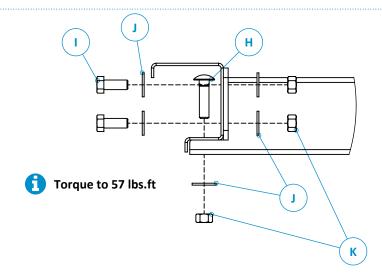


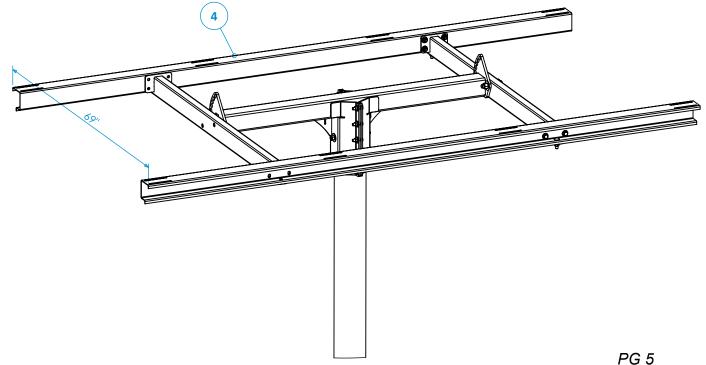
0.500" x20



It is reccomended to loosely install all hardware first and then go around and torque them.

The bolt on the bottom flange will be a carriage bolt. Install so the head of the carriage bolt locks into the slot of the G-Beam.









# **6.0 Rail Installation**







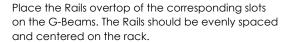




0.312" x 1.000" Flanged Hex Bolt

Typhoon

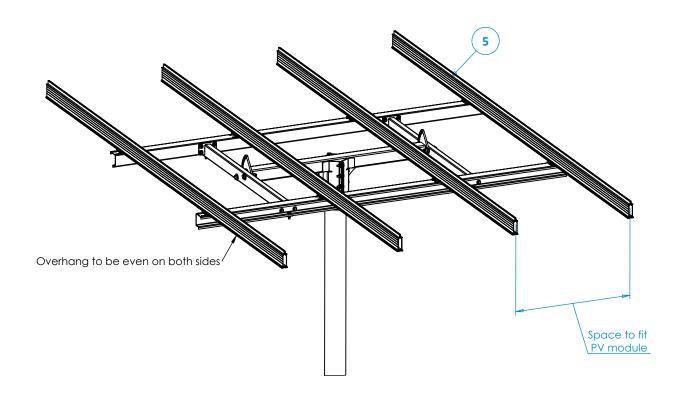
Clip C x32

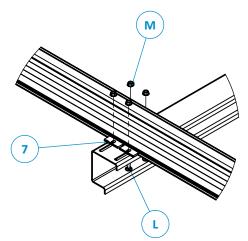


The solar modules will sit inside the channels of the Rails. Adjust the spacing of the rails to fit the width of the module you are using.



Rail length varies depending on TPM version









# 7.0 Module Installation













0.250" Flat Washer

x36



x36

Typhoon Clip C



The PV-modules rest on flanges along the Typhoon Rails. The center rails will hold a module on each side. Place all of the modules onto the rails and check their positioning.

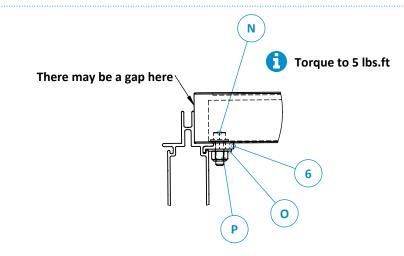


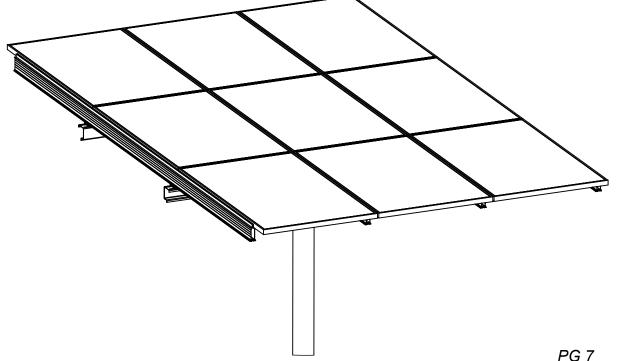
Make sure to arrange the PV-modules so that they are centered along the length of the Rails.

Once the modules have been positioned and any adjustments have been made, secure the modules down using the Typhoon Clip A's and the provided hardware.



Clip A has the smaller slot to fit 1/4" hardware









# 8.0 Bonding





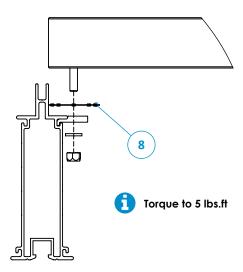


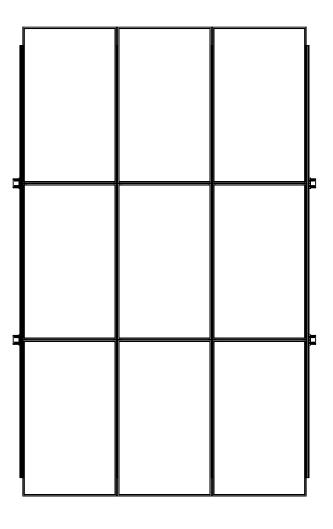
WEEB

Bonding Washer

The PV-modules are bonded to the Rails using WEEB washers. Each module requires at least one WEEB washer.

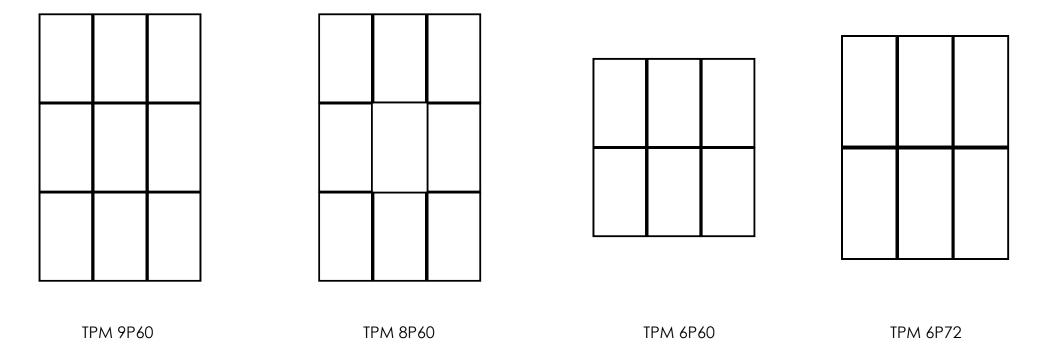
The WEEB washer must be located in between the module frame and the Rail flange. Bolts must be properly torqued.















# **10.0** Angle Selection



The TPM can be manually adjusted to tilt angles from 20° to 70°. The Front bolt with the nylock nut will stay attached. To adjust the tilt, remove the back bolts and rotate the rack to the desired angle.



#### Ensure bolt is re-torqued

The TPM can be manually adjusted to tilt angles from 20° to 70°. The Front bolt with the nylock nut will stay attached. To adjust the tilt, remove the back bolts and rotate the rack to the desired angle.

